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No.

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मध - 066

**ELECTIVE - I**  
**Broadband Communication**  
**(New) (1255)**

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any two** sub questions from each unit.
5. Draw diagram wherever necessary.
6. Assume suitable data if required.

**UNIT - I**

1. a) Explain common channel signaling with it's two modes. **10**  
b) Explain public telecommunication Network with block diagram. **10**  
c) Explain in brief effect of packet size on transmission line **10**

**UNIT - II**

2. a) With diagram explain user - Network interface protocol architecture used for frame mode beaver services. **10**  
b) Explain traffic rate measurement with concept of committed information rate (CIR). **10**  
c) With proper representation explain LAPF core protocol frame format in detail. **10**

**UNIT - III**

3. a) Explain ISDN architecture with diagram. **10**  
b) Explain ISDN reference points and functional grouping in detail. **10**  
c) Explain in detail various ISDN channels and channel structure. **10**

**UNIT - IV**

4. a) What is ATM ? With proper sketch explain ATM cell format. 10
- b) Explain AAL protocol with neat diagram. 10
- c) Write a short notes on : 10
- i) VP switching hierarchy.
- ii) HEC operation at receiver.

**UNIT - V**

5. a) Explain SONET / SDH frame format. 10
- b) Explain Broad band services with it's types. 10
- c) Draw and explain B - ISDN user Network interface. 10

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